FORNEY TEST MACHINES

F-450-FL MANUAL COMPRESSION TEST MACHINE

COMPRESSION MACHINE

LOAD CAPACITY	FRAME	CONTROL SYSTEM
450,000lb	Standard (F)	Manual
TEST TYPES	**TESTING MATERIALS**	**DESIGNED & BUILT BY FORNEY**
Compression, Flexural, Tensile Splitting	Cylinders, Cubes, Grout Prism, Beams, Rock Core	Exceeds ACI Recommendations





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HARDWARE

FRAME

Designed and built by Forney. These machines are ideal for the general lab because of their versatility. Standard Testing Machines have frames manufactured from solid steel into a one-piece, welded unit that exceeds ACI recommendations. All machines in the series have Lexan fragment guard doors for enhanced safety.

The load frame is manufactured from structural steel angles welded to top and bottom crossheads of solid steel plate. The hydraulic cylinder assembly is mounted to the bottom crosshead, with force being applied in upward direction and debris protection by metal shroud.

MATERIALS

Test hydraulic cement, down hole cement, mortar, grout, concrete, self-consolidating concrete, CLSM, flowable fill, ceramics, metals, and plastics.

HYDRAULIC

The hydraulic unit is supplied as a complete, fully integrated assembly. The unit is pre-piped and pre-wired. It incorporates hydraulic valves.

Single unit design permits easy installation and provides portability without disassembling of hydraulic or electrical components.

SAFETY FEATURES

Several safety features are incorporated to protect both operator and testing machine:

- Fragment Safety Guard: Fragment guards with latches and hinges are mounted to both the front and rear of the compression frame. Fragment guards are made of Lexan® and permits clear viewing of the test in process.
- *Optional Overextension Protection: A piston over-extension limit switch system protects against piston extension beyond maximum travel.

SOFTWARE

DIGITAL READOUT SYSTEM

Setup of testing protocol, real-time display of test data, and post-test data transfer is accomplished through the ForneyLink touchscreen HMI. The operator can navigate options for:

- Test Run
- Test Setup
- Machine Setup
- Calibration
- Reporting and Data Transfer
- Diagnostics

Provides a simultaneous display of force, stress and rate of load, along with a real time graph of load or stress vs time. Standard functionality includes data collection by the ForneyLink touchscreen HMI for printing and transfer.

ADD FORNEYVAULT TO YOUR MANUAL MACHINE

Make your machine smart – enable two-way data communication by accessing information and making it available for the testing process. Connect your machine seamlessly to LIMS packages, QC software, and other third-party software participating on the ForneyVault platform. ForneyVault enabled machines help control the workload, and make your technicians smarter and more productive, with fewer costly errors.

A smart machine can:

- Enable intelligent workflows
- Enable Bar Code Scanning capability to identify the specimen to be tested
- Validate specimen geometry
- Calculate proper preload settings – based on actual and/or expected strength
- Calibration Monitor provides notification of impending calibration requirements
- Discard Dashboard provides context enabled specimen management for untested specimen disposal decisions.
- Notify you that a correction factor should be used
- Notify you of individual low breaks
- Notify you of excessive variance among several specimens

REMOTE SUPPORT

with a user-provided Internet connection (either Wi-Fi or Ethernet), all ForneyLink equipped machines are capable of real-time, online support from the Forney Support Team for basic settings and test setup to advanced troubleshooting, fault finding, and software updates.

We offer unlimited Remote Technical Support for all Forney Testing Machines during the two-year warranty period.

For ForneyVault® subscribers, post-warranty remote technical support fees are waived for the life of your subscription.

Please refer any special requirements to a Forney sales representative.

*** Specifications are subject to change without notice.**

ACCESSORIES	
Cylinder Compression (6" Dia x 12" L with Pad Caps) (150mm x 300mm)	TA-0101 Cylinder Top Platen Assembly (included w/ machine)
Cylinder Compression (6" Dia x 12" L with Capping Compound or Ground Ends) (150mm x 300mm)	TA-0103 Cylinder Top Platen Assembly
Cylinder Compression (4" Dia x 8" L with Pad Caps) (100mm x 200mm)	TA-0101 Cylinder Top Platen Assembly (included w/ machine) TA-0202 Spherical Seat Extender, 4" H
Cylinder Compression (4" Dia x 8" L with Capping Compound or Ground Ends) (100mm x 200mm)	TA-0103 Cylinder Top Platen Assembly TA-0202 Spherical Seat Extender, 4" H
Cylinder Tensile Splitting (6" Dia x 12" L) (150mm x 300mm)	TAG-0023 Cylinder Splitting Kit
Cylinder Tensile Splitting (4" Dia x 8" L) (100mm x 200mm)	TA-0107-01 Cylinder Splitting Accessory TM-0074 Bottom Platen TA-0171 Spacer, 2" H
Cube (2") (50mm)	TAG-0056 Cube (2") Accessory Kit
Cube (6") (150mm)	TA-0111 Cube Top Platen Assembly (2) TA-0202 Spherical Seat Extender, 4" H
Flexural Beam (6" x 6" x 18") (150mm x 150mm x 450mm)	TA-0166 Flexural Testing Accessory
Grout Prism (3" x 3" x 6") (75mm x 75mm x 150mm)	TA-0101 Cylinder Top Platen Assembly (included w/ machine) (2) TA-0202 Spherical Seat Extender, 4"" H"

FACTORY INSTALLED OPTIONS	
Voltage	110/220VAC Single Phase
Capacity Options	Dual Range (2 transducers) on Single Frame (2R)
Frame Options	Second Frame Capability (AB) Dual Frame Capability (adds 250k de-rated frame to machine) (2F) Dual Frame Capability (adds 30k frame setup for Concrete Beam) (BT)
Travel Limit Switch	Optional Equipment - TA-1237-07

SPECIFICATIONS	
Load Capacity Range	4,500lbf - 450,000lbf
Vertical Opening	19.125"
Horizontal Opening	9.5"
Ram Diameter	8.5"
Piston Stroke	2.5"
Platen Hardness	60 HRC
Lower Platen Dimension	10.5" Diameter
Upper Platen Dimension	6.5" Diameter
Oil Reservoir Capacity	2 Gallons
Overall Width	34"
Overall Depth	24"
Overall Height	60"
Unit Weight	1,480lbs
Test Standard Ready	ASTM C39 Cylinders in Compression (6" diameter x 12" length, pad cap tesing) ASTM E4

Test Standard Capable	ASTM C39, C78, C293, C109, C496, C1019 AASHTO T 22, T 97, T 106 BS 1610, BS 1881, EN ISO7500-1, EN 12390-3, EN 12390-4